Strephona literata, Tuomey & Holmes, Pleioc. Foss. S. C., p. 140, 1857.

Olivancillaria (*Utriculina*) *litterata*, H. & A. Adams, Gen. i, p. 141, 1858.

Dactylina carolinensis, Conrad, Pro. Ac. Nat. Sci., p. 563, 1862.

Oliva circinata, Marrat, Thes. Conch., iv. p. 21, 1871.[1]

Oliva litterata, (*O. Sayana*, Rav.) Ravenel, Cat., p. 16, 1874.

PLEUROBEMA MISSOURIENSIS MARSH.

BY BRYANT WALKER.

This species was described by the late William A. Marsh in 1901 in The Nautilus, xv, p. 74. The types were collected by the late Ellwood Pleas in the Black River near Poplar Bluff, Butler Co., Mo. It has not as yet been found by any other collector. It was not figured by the author, and owing to this fact and the rather unfortunate comparisons with other species made in the remarks accompanying the description, it has always been a conundrum to other students of the Unionidæ.

After Mr. Marsh's death in 1913, his collection of Unionidæ was acquired by Mr. L. S. Frierson and myself. The four specimens of *missouriensis* mentioned by Marsh were found and the type and one other are now in my collection. The other two belong to Mr. Frierson.

The specimen now figured (pl. V, figs. 1, 2) is marked "Type" on the interior of the right valve.

The examination of these specimens shows that the systematic position and relationship of the species was misunderstood by Mr. Marsh.

Missouriensis is not a *Pleurobema*, but is a *Quadrula* of the *subrotunda* group as defined by Simpson. It has no resemblance to *P. bigbyense* Lea at all. The comparison with *P. hartmanianum* Lea is equally fallacious and would seem to have been based upon a misapprehension of that species, for which, perhaps, he is not to blame. *Hartmanianum* is restricted to the

[1] Fide Johnson.

Alabama drainage system, but Simpson states that Lea, himself, had identified certain shells from the Clinch River as that species. This may have been the source of the erroneous comparison. At any rate, in the collection of the late Mrs. George Andrews were shells from the Holston River, which had been identified by Marsh as *hartmanianum*, and it seems probable that it was with such shells that the comparison was made. These shells are identical with the form that he subsequently described as *Q. beauchampii*. Both this species and his *Q. andrewsii* are hardly distinguishable from *globata* Lea and *pilaris* Lea and, indeed, all of these forms, together with *lesueurianus* Lea, form a natural group of inosculating races, which may represent simply a phase of *subrotundum* Lea. In the French Broad, Tellico and Hiawassee rivers there is found a form that is more compressed than typical *pilaris* and which would seem to be nearer to *lesueurianus*. It is with this form that *missouriensis* is most closely allied and, until a final and authoritative disposition can be made of the entire group, it must be considered as the western representative of that very perplexing aggregation.

STUDIES IN NAJADES.

BY A. E. ORTMANN.

(*Continued from page 131.*)

CARUNCULINA TEXASENSIS (Lea) (See Ortmann, 1912, p. 339).

I have specimens from the Old River of the Ouachita River, Arkadelphia, Clark Co., Ark., among them gravid females, collected by H. E. Wheeler on July 17, 1911, which had in part eggs, in part young glochidia, and females with eggs collected August 20, 1912. L. S. Frierson sent gravid females with eggs and ripe glochidia, collected August 1, 1912, in Sabine River, Logansport, De Soto Par., La. Thus also here the breeding season remains obscure, but conditions might be the same as in *C. parva*. A specimen from Logansport, collected Aug. 1, was discharging.